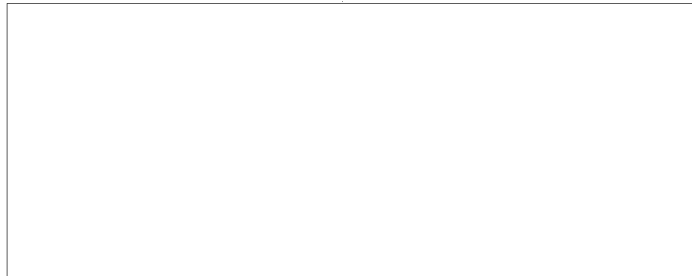


4486  
DPD-4486-57

30 June 1959

**MEMORANDUM FOR : Acting Chief, Development Projects Division**  
**SUBJECT : Granger Countermeasures Repeater, Model 504**

1. On 24 June 1959, a meeting was held at Point Mugu Naval Air Station to discuss the proposed flight test program of the production Granger Countermeasures Repeater. Present at the meeting were:



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2. The first production Granger Black Box is now complete. It is presently undergoing laboratory testing at Palo Alto and will be ready to deliver to Edwards Air Force Base for flight testing approximately 20 July 1959. This production article will have the additional feature of missile doppler deception as well as retaining the characteristics of the original system.

1. The proposed flight test program is as follows:

a. Test that the box functions properly at maximum altitude of carrier aircraft.

b. Test operation of system to perform equally as well as during the R & D phase. This test to be accomplished at Point Mugu, using same type radar system as before.

c. Repeat b with c. w. doppler system activated to test priority circuit of Granger box.

d. Repeat "tail chase" using doppler only.

e. Test of box simulating tactical mission to include zoom climbs of tactical aircraft using H-band tracking radars.

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25 YEAR RE-REVIEW

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(NOTE: It may be possible to combine a and g, and g and d, above. Item b cannot be combined with either g or d, since the doppler system can only be deactivated on the ground.)

d. There is one large obstacle to the test program at this time: All F-106's with suitable fire control systems have been transferred from Edwards Air Force Base due to completion of the test program. It will be necessary to attempt to borrow an F-106 from the Palmdale production line through Col. Geary (through Gen. Ruegg, AFMPPF) to lay on the request to AMC. No particular problem is foreseen in accomplishing the necessary coordination. Major Hippert will make the request of Col. Geary.

e. **RECOMMENDATIONS:** It is recommended that DPD Operations Branch, in coordination with Communications Section, arrange for the necessary field technical representatives to be at Edwards Air Force Base on 29 July 1969 for on-the-job training of installation, ground testing, and maintenance of the Granger system. It is doubtful that Granger is capable of sending techreps to the field due to lack of personnel. It should not be necessary for them to do so since the system, although complex, is relatively straightforward for an electronics specialist. This training can be better accomplished at Edwards than in the field, where both the high level of experience and the contractor will be available to assist in the program.

**SIGNED**

Major, USAF  
Development Branch, DPD

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DPD:RDH/ameb  
(Retyped EPD/hh)

**APPROVAL:** Recommendations in  
para. 5 approved.

**Distribution:**

- 2 - 1 - Addressee
- 1 - Edwards Det.
- 1 - DPD/Ops
- 1 - DPD/Mat
- 1 - DPD/Commo
- 1 - DPD/Security
- 1 - DPD/Admin
- 1 - DPD/Contracts
- 1 - DPD/
- 1 - DPD/RI

**SIGNED**

**WILLIAM BURRELL**  
Colonel, USAF  
Acting Chief, DPD-DD/P

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1-DPD-FIN